

FORT MCKINLEY,  
BATTERY CARPENTER OBSERVATION STATION

HAER No. ME-59-E

On the west side of East Side Drive approximately  
275 feet south of Weymouth Way  
on Great Diamond Island  
Portland  
Cumberland County  
Maine

HAER  
ME  
3-PORT,  
27E-

PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

HISTORIC AMERICAN ENGINEERING RECORD

National Park Service  
Northeast Region  
Philadelphia Support Office  
U.S. Custom House  
200 Chestnut Street  
Philadelphia, P.A. 19106

HAER  
ME  
3-PORT,  
27 E-

**HISTORIC AMERICAN ENGINEERING RECORD  
FORT MCKINLEY  
BATTERY CARPENTER OBSERVATION STATION**

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**Location:**

On the west side of East Side Drive approximately 275 feet south of  
Weymouth Way on Great Diamond Island  
Portland, Cumberland County, Maine

UTM: 19.403940.4836750

Quad: Portland East, ME, 1:24,000

**Date of Construction:**

1908

**Architects & Engineers:**

Army Corps of Engineers

**Present Owners:**

McKinley Partners Limited Partnership

**Present Use:**

Vacant

**Significance:**

Fort McKinley attains significance as the largest of Portland Harbor's five military complexes built in the late 19th and early 20th centuries. The fort protected Maine's principal city with one of the most well-defended harbors in the country. Battery Carpenter Observation Station is one of seven such stations built at Fort McKinley between 1905 and 1909 to control and monitor gun fire from the fort's large batteries.

**Project Information:**

This is one of nine structures at the fort to be documented in accordance with the Memorandum of Agreement of 1989 as a mitigative measure prior to partial demolition of the structure.

Christine S. Beard  
Tremont Preservation Services  
10 Barr Street  
Salem, MA 01970

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## SITE

Fort McKinley occupies the northern half of Great Diamond Island in Maine's Casco Bay and is a part of the City of Portland. The Battery Carpenter Observation Station is located on the South Fork of the island within bounds of Fort McKinley. It is set back from the road in a wooded area on the west side of East Side Drive, approximately 275' south of Weymouth Way, only about two feet west of a WWII concrete tower and just south of the South Fork Latrine.

## DESCRIPTION

The Battery Carpenter Observation Station is in very poor condition, with the roof and most of the walls collapsed. The structure was built in 1908 using the Sewell method of construction. This technique uses cement plaster over steel mesh on a wood or steel frame. The unpainted exterior took on a cream or light tan color. Although the roof is collapsed, it appears to be a shallow hip roof finished with tar and gravel. Resting on a concrete foundation, the building is a single-room structure. The only entrance is on the west elevation. The wood door has three rectangular panels set beneath a glazed panel (all glass missing and opening blocked but if like other similar buildings, it had 9 panes). Remaining fenestration consists of one window at the south elevation, and a long narrow window that runs across the east elevation and wraps around the north and south elevations (about four feet along north and south). The larger window at the south elevation has been boarded up so the sash is not visible, based on similar buildings at the fort, it probably had wood double-hung sash with a 6/6 configuration. A series of paired single-pane sash are contained in the long narrow window. On the exterior, window and door openings are framed by flush wood trim. Due to the severely deteriorated condition, original interior finishes cannot be determined. Based on other buildings of the same style and type, the interior most likely had hardwood floors, rough plaster floors and tongue & groove board or pressed metal ceilings. Window and doors were probably framed by molded wood trim.

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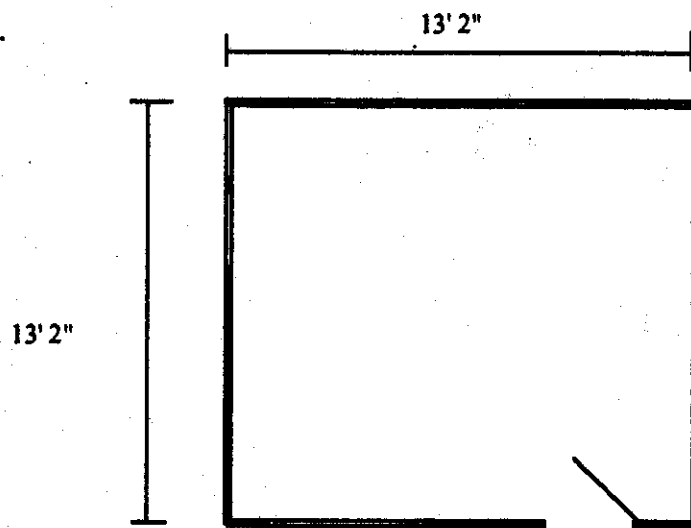
## **HISTORICAL BACKGROUND**

Establishment of Fort McKinley was part of a larger effort by the government to provide strategic harbor defenses throughout the country, a practice begun in the late eighteenth century. Fort McKinley was the largest of four new fortifications established to protect the many avenues of entry into Portland Harbor at the turn-of-the-century. It was situated to deter entrance into the harbor from the north, particularly by way of Hussey Sound and Broad Sound. Plans for Fort McKinley included construction of nine gun batteries and facilities to mine the two major channels. To help control and monitor the firing of the guns, each battery had an observation station constructed nearby. These stations provided both range and directional information to the batteries. The Battery Carpenter Observation Station is one of seven such stations built at Fort McKinley between 1905 and 1908. This station served nearby Battery Carpenter which held two 6 inch breechloading rifles mounted on pedestals.

In 1905, under President Theodore Roosevelt, a board was appointed to evaluate the country's defenses. The Taft Board, headed by Secretary of War William H. Taft, made recommendations to improve the existing system for controlling the guns and mines. Rather than sighting guns directly, the board proposed to use a sophisticated observation system with optical instruments in the observation stations. Sightings would be sent by telephone into plotting rooms where the data was processed. In turn, ranges and directions were sent to the batteries. In response to the Taft Board recommendations, Battery Carpenter Observation Station was constructed to control fire from nearby Battery Carpenter, one of the smallest of the forts batteries. The building contains a single operations room.

During WWII the Navy also established a strong presence in Portland Harbor, sharing responsibility for defense of the area with the Army. The Navy undertook a number of measures to supplement the work of the Army, including rigging submarine nets and sinking old ships between the islands and the mainland to completely enclose the harbor. By doing this, the batteries and mine casemates on the north and east shores of Fort McKinley were rendered superfluous. Consequently, only one battery at Fort McKinley needed to be manned, Battery Carpenter. During WWII a new station was built to monitor and control the firing from Battery Carpenter. This two story concrete Rangefinder Station took over the responsibilities of the Observation Station. By the mid-1940s, as the threat of a major attack became unlikely, build-up of the coastal defenses greatly diminished and were virtually halted by 1940. Experiences during WWII, such as amphibious landings, air strikes, and the development of nuclear weapons and missiles all contributed to making harbor defenses like Fort McKinley obsolete. In 1950 the Coast Artillery was dissolved, the U.S. Army harbor defense commands were disbanded, and the forts were abandoned.

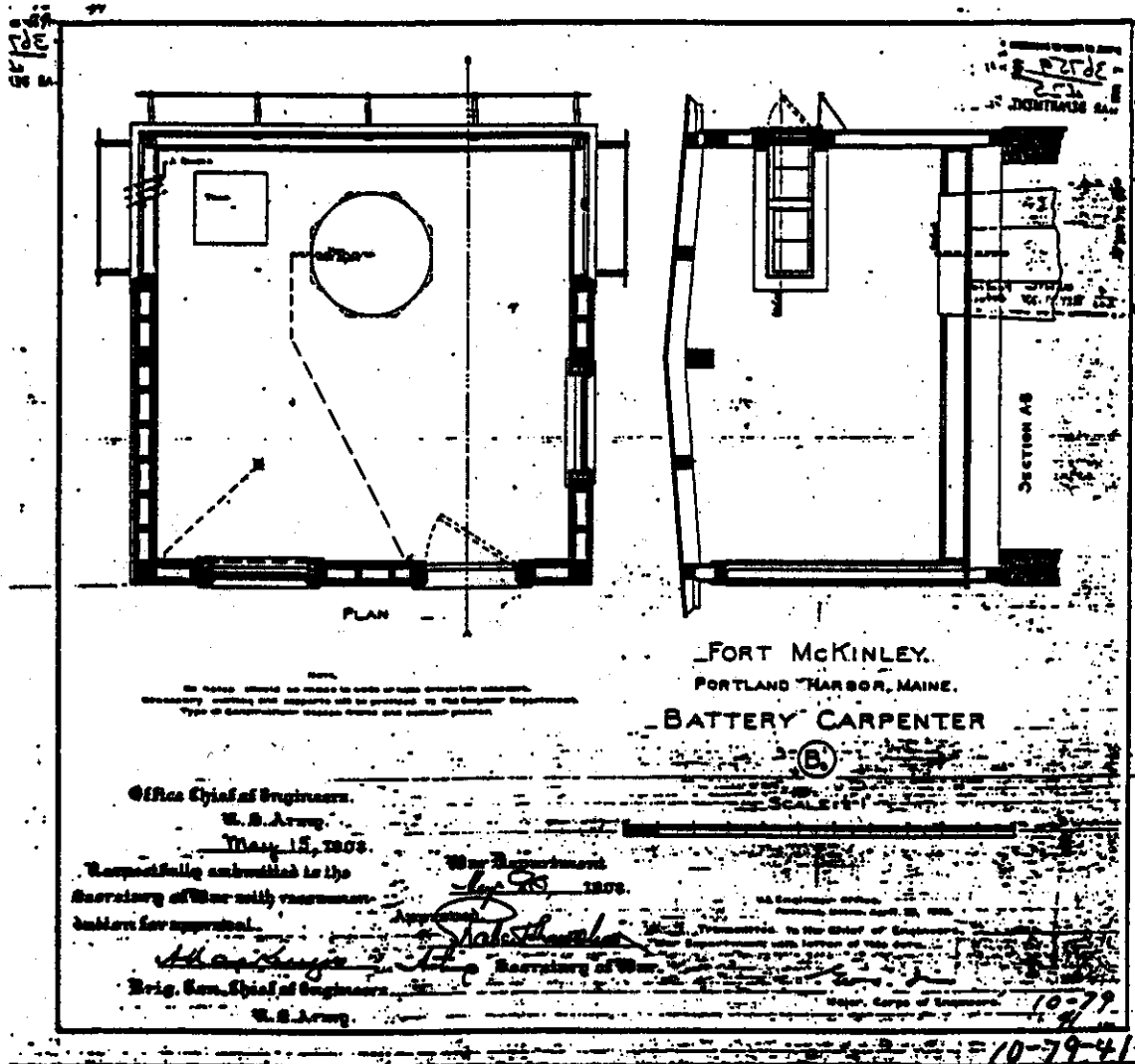
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Battery Carpenter Observation Station  
Floor Plan  
[not to scale]

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Battery Carpenter Observaton Station  
Original Plan at National Archives (file no. DR 10-79-41)